

679Vk

GACATTGTGATGTCACAATCTCCATCCTCCCTGGCTGTGTCAACGAGAGAGGTCACCTATGACCTGCAATCCAGTCAGAGTCTGTTC 90  
D I V M S Q S P S S L A V S P G E K V T M T C K S S Q S L F 30

AACAGTAGAACCCGAAAGAACTACTTGGGTGGTACACGACGAGAAACCAGGGCAGTCTCCTAAACTTCTGATCTACTGGGCATCTACTCGG 180  
N S R T R K N Y L G W Y Q Q K P G Q S P K L L I Y W A S T R  
CDR1

GAATCTGGGGTCCCTGATCGCTTCACAGGCAGTGGATCTGGGACAGATTTCACCTCTCACCATCAACAGTGTGCAGTCTGAAGACCTGGCA 270  
E S G V P D R F T G S G S G T D F T L T I N S V Q S E D L A 90

GTTTATTACTGCACTCAAGTTTATTATCTGTGCACGTTCCGTGCTGGACCAAGCTGGAGCTGAAACGG  
V Y Y C T Q V Y Y L C T F G A G T K L E L K R  
CDR3

PRODUCTION AND USE OF NOVEL PEPTIDE-BASED  
AGENTS FOR USE WITH BI-SPECIFIC ANTIBODIES  
Inventor: HAY et al.  
CIP of U.S. Ser. No. 09/337,756  
Docket No. 018733/1015  
Attorney: Bernhard D. Saxe  
Phone: (202) 672-5427  
Sheet 1 of 7

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1087

Figure 1.

679VH

GTCCAAGTGCAGGAGTCAGGGGGAGACTTAGTGAGCCTGGAGGGTCCCTGAAACTCTCCTGTGCAGCCTCTGGATTCACTTTTCAGTATT 90  
V Q L Q E S G G D L V K P G G S L K L S C A A S G F T F S I 30

TACACCATGTCTTGGCTTCGCCAGACTCCGGAAAAGAGGCTGGAGTGGTCCGAAACCCTGAGTGGTGATGGTGATGACATCTACTATCCA 180  
Y T M S W L R Q T P E K R L E W V A T L S G D G D I Y Y P 60  
CDR1

GACAGTGTGAAGGGTCGATTCAACCATCTCCAGAGACAATGCCAAGAACACCTATATCTGCAAAATGAACAGTCTAAGGTCTGCGGACACG 270  
D S V K G R F T I S R D N A K N N L Y L Q M N S L R S A D T 90

GCCTTGATTACTGTGCAAGGGTCCGACTTGGGGACTGGGACTTCGATGTCTGGGGCCCAGGGACCCACGGTCTCCGCTCTCCTCA 354  
A L Y Y C A R V R L G D W D F D V W G P G T T V S V S 118  
CDR3

Figure 2.

## 679scFv

GACATTGTGATGCACAATCTCCATCCTCCCTGGCTGTGTCCACGAGGAGAGAGGTCACTATGACCTGCAAAATCCAGTCAGAGTCTGTTC 90  
 D I V M S Q S P S S L A V S P G E K V T M T C K S S Q S L F 30

AACAGTAGAACCCGAAAGAACTACTTGGGTTGGTACCAGCAGAAACCAGGGCAGTCTCCTAAACTTCTGATCTACTGGGCATCTACTCGG 180  
N S R T R K N Y L G W Y Q Q K P G Q S P K L L I Y W A S T R 60  
 Vk CDR2

GAATCTGGGGTCCCTGATCGCTTCACAGGCAGTGGATCTGGGACAGATTTCACCTCTCACCATCAACAGTGTGCAGTCTGAAGACCTGGCA 270  
E S G V P D R F T G S G S G T D F T L T I N S V Q S E D L A 90

GTTTATTACTGCACCTCAAGTTTATTATCTGTGCACGTTCCGTTGCTGGACCAAGCTGGAGCTGAAACGAGGAGGTGGCGGATCAGGAGGC 360  
 V Y Y C T Q V Y Y L C T F G A G T K L E L K R G G G G S G G 120  
 Linker

GGAGGCTCCGGAGGCGGTGGAGTGAGGTGCAGCTGCAGGAGTCTGGGGGAGACTTAGTGAAGCCTGGAGGTCCTGAAACTCTCCTGT 450  
G G S G G G G S E V Q L Q E S G G D L V K P G G S L K L S C 150  
 Linker

GCAGCCTCTGGATTCACTTTCAGTATTTACACCATGTCTTGGCTTCGCCAGACTCCGGAAAAGAGGCTGGAGTGGTGCACACCTGAGT 540  
 A A S G F T F S I Y T M S W L R Q T P E K R L E W V A T L S 180  
 VH CDR1

GGTGTGTGATGACATCTACTATCCAGACAGTGTGAAGGTCGATTCAACCATCTCCAGAGACAAATGCCAAGAACACCTATATCTGCAA 630  
G D G D D I Y Y P D S V K G R F T I S R D N A K N N L Y L Q 210  
 VH CDR2

ATGAACAGTCTAAGTCTGCGGACACGGCCTTGATTACTGTGCAAGGTCGACTTGGGACTGGGACTTCGATGTCTGGGGCCAAAGG 720  
 M N S L R S A D T A L Y Y C A R V R L G D W D F D V W G Q G 240  
 VH CDR3

ACCACGGTCACCGTCTCCTCA  
 T T V T V S S

Figure 3.

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GCTGTTTGTGATGACCCAACTCCACTCTCCCTGCCTGTCTAGTCTTGAGATCAAGCCTCCATCTCTTGCAGATCTAGTCAGAGCATTGTC 90  
 A V L M T Q T P L S L P V S L G D Q A S I S C R S S Q S I V 30

CATAGTAATGGCAACACCTATTAGATGGTACCTGCAGAAACCAGGCCAGTCTCCAAAGCTCCTGATCTACAAAGTTTCCAACCGATT 180  
H S N G N T Y L E W Y L Q K P G Q S P K L L I Y K V S N R F 60  
 CDR2

TCTGGGGTCCCAGACAGGTTTCAGTGGCACTGGATCAGGGACAGATTTCACAGTCAGGATCAGCAGAGTGAGGCTGAGGATCTGGGACTT 270  
S G V P D R F S G T G S G T D F T V R I S R V E A E D L G L 90

TATTACTGCTTCAAGGTTTCACGTGTTCCGTACACGTTCCGAGGGGGACCAAGCTGGAAATAAAA  
Y Y C F Q G S R V P Y T F G G G T K L E I K  
 CDR3

PRODUCTION AND USE OF NOVEL PEPTIDE-BASED  
 AGENTS FOR USE WITH BI-SPECIFIC ANTIBODIES  
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 Attorney: Bernhard D. Saxe  
 Phone: (202) 672-5427  
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 407 7

336  
 112

Figure 4.

# Mu9VH

GTGCAGCTGCAGGAGTCAGGACCTGAGCTGGTGAAGCCTGGGGCTTCAGTGAAGATGTCCTGCAGGGCTTCTGGATACACCTTCACTGAG 90  
V Q L Q E S G P E L V K P G A S V K M S C R A S G Y T F T E 30

TATGTTATTACCTGGGTAAACAGAGAACTGGACAGGGCCTTGAGTGGATTGGAGAGATTTATCCTGGAAGTGGTAGTACTTCCTACAAT 180  
Y V I T W V K Q R T G Q G L E W I G E I Y P G S G S T S Y N 60  
CDR1 CDR2

GAAAAGTTCAAGGGCAAGGCCACACTGACTGCAGACAAATCCTCCAACACAGCCCTACATGCACCTCAGCAGCCTGACATCTGAGGACTCT 240  
E K F K G K A T L T A D K S S N T A Y M H L S S L T S E D S 90

GCGGTCTATTCTGTACAAGAGAGGATCTTGGGGGCCAAGGGACTCTGGTCACCTGTCTCTTCA 333  
A V Y F C T R E D L G G Q G T L V T V S S 111  
CDR3

PRODUCTION AND USE OF NOVEL PEPTIDE-BASED  
AGENTS FOR USE WITH BI-SPECIFIC ANTIBODIES  
Inventor: HAJI et al.  
CIP of U.S. S. No. 09/337,756  
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Figure 5.

hMu9Vk

GATATCCAGCTGACCCCAATCCCCAGGCACCCCTGTCCCTCAGTCCTGGAGAGCGAGCCACTCTGTCTTGCAGGCTCTAGTCAGAGCATTTGTG 90  
D I Q L T Q S P G T L S L S P G E R A T L S C R S S Q S I V 30

CATAGTAATGGCAACACCTATTAGAAATGGTACCTGCAGAAACAGGCCAGGCTCCAAGGCTCCTGATCTACAAAGTTTCCAACCGATT 180  
H S N G N T Y L E W Y L Q K P G Q A P R L L I Y K V S N R F 60  
CDR2

TCCGGAGTCCCAGACAGGTTTCAGTGGCTCTGGATCAGGGACAGATTTCACACTTACTATCAGCAGACTGGAGCCTGAGGATTTTGCTGTG 270  
S G V P D R F S G S G S G T D F T L T I S R L E P E D F A V 90

TATTACTGCTTTCAAGGTTACGTTCCGTACACGTTCCGAGGGGGACCAAGGTGGAGATC  
Y Y C F Q G S R V P Y T F G G G T K V E I

CDR3

PRODUCTION AND USE OF NOVEL PEPTIDE-BASED AGENTS FOR USE WITH BI-SPECIFIC ANTIBODIES

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eq 7

Figure 6.

PRODUCTION AND USE OF NOVEL PEPTIDE-BASED  
AGENTS FOR USE WITH BI-SPECIFIC ANTIBODIES

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Sheet 7 of 7

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787

hMu9VH

GTGCAGCTGCAGCAGTCAGGAGCTGAGTGAAAAAGCCTGGGAGCTCAGTGAAGGTCTCCTGCAAGGCTTCTGGATACACCTTCACCTGAG 90  
V Q L Q Q S G A E V K K P G S S V K V S C K A S G Y T F T E 30

TATGTTATTACCTGGGTAAAAACAGAGACCTGGACAGGGTCTAGAGTGGATTGGAGAGATTTATCCTGGAAGTGGTAGTACTTCCTACAAT 180  
Y V I T W V K Q R P G Q G L E W I G E I Y P G S T S Y N 60  
CDR1 CDR2

GAAAAGTTCAAGGGCAAGGCCACAATCACTGCTGACAAATCCACTAACACAGCCTACATGGAGCTCAGCAGCCTGAGATCTGAGGACACT 270  
E K F K G K A T I T A D K S T N T A Y M E L S S L R S E D T 90

GCGTCTATTCTGTACAAGAGAGGATCTTGGGGGCCAAGGGTCTCTGGTCACCGTCTCTTCA 333  
A F Y F C T R E D L G G Q G S L V T V S S 111  
CDR3

Figure 7.